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UNIVERSITY OF ALBERTA

STUDENTS' OPINIONS OF TEACHING PERFORMANCE AND TEACHERS' SELF-EVALUATIONS

LINDA A. ELLIOTT

A THESIS

SUBMITTED TO THE FACULTY OF GRADUATE STUDIES

IN PARTIAL FULFILMENT OF THE REQUIREMENTS

FOR THE DEGREE OF

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UNIVERSITY OF ALBERTA

FACULTY OF GRADUATE STUDIES AND RESEARCH

The undersigned have read, and recommend to the Faculty of Graduate Studies and Research, for acceptance, the thesis entitled STUDENTS' OPINIONS OF TEACHING PERFORMANCE AND TEACHERS' SELF-EVALUATION submitted by LINDA A. ELLIOTT in partial fulfilment of the requirements for the degree of Master of Education.

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ABSTRACT

The three purposes of this investigation were: (a) to examine students' opinions of teaching performance, (b) to explore teacher performance self-evaluation, and (c) to compare students' opinions to teachers' self-evaluations. A random sample of 303 students from grades seven, eight, and nine, and ten teachers from Westlock School Division #37 were involved in collecting data using a formal instrument pertaining to teaching behaviors. Ten volunteer teachers each taught three regular lessons to students. At the conclusion of each lesson, students completed an anonymous student opinion checklist consisting of 22 statements relating to teaching behaviors during the lesson. Teachers completed an adaptation of the student form to evaluate their own performance. Data were analysed using frequency counts and analysis of variance. Students' opinions of each survey statement were investigated and the opinions of different student groups were compared. Student responses were grouped according to student gender, teacher years of experience, subject, grade level, class size and teacher gender. Frequency counts for teacher self-evaluation data were calculated. Finally, student and teacher responses were compared. Examination of the data indicated that differences of opinions existed between student groups. Further, a comparison of student data and teacher data revealed that students and teachers do not always share the same opinions regarding teaching performance.

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Chapter I

Introduction

Supervision of teaching performance is the general umbrella under which this research study may be categorized. Supervision suggests evaluation, and evaluation entails data collection. Data may be amassed employing various resources such as superintendents, school administrators, colleagues, and students; and through numerous methods, including observing classrooms and completing formal instruments; reviewing audio tapes and videotapes of teaching performance; interviewing peers, principals, students, and the teacher him/herself; measuring student achievement; and reading tests, lesson plans, teacher notes, and student notes.

The present study investigated two data collection sources appropriate for the teacher supervisory process: students' perceptions and teachers' self-evaluations. The study examines the opinions of groups of students regarding teaching performance, explores teacher self-appraisal, and compares the responses of teachers to those of students.

Background and Need

Educational quality pertaining to monetary input is a concern of educators, politicians, and the public alike. Many tax dollars contribute to facilities, personnel, equipment, curriculum development, and materials in the educational field. Recent studies (Morrow, 1985) as well as public polls conducted in the United States and Canada (Gallup, 1984; Manitoba Education, 1984;

Livingston, 1982) indicate a lack of public confidence in the acceptability of educational results per monetary input. Public education has not sufficiently supported the opinion that a better product is a consequence of more money spent.

Although these studies and polls signify that the public strongly believes in the importance of education, apprehension is expressed regarding the quality of this education. To conclude that educational standards have decreased because public polls indicate such is inaccurate. However, public perception is important, and public schools may be wise to incorporate changes to again obtain public confidence and to assure those concerned that their resources are, in fact, resulting in quality education. Many Canadian provinces, including Alberta, are developing new policies that are directed at ensuring the taxpayers that monies are indeed being well spent. These policies not only may assist in satisfying the ratepayers, but also may contribute to real changes at all educational levels, demonstrating not only that high standards are obtained but also that quality continues to increase. In order to measure and increase educational quality, standards need be identified and accountability ongoing.

Alberta Education has acknowledged public concern as well as other input regarding educational quality and has responded by developing the Program Policy Manual, Third Edition, 1985. This document contains policies, guidelines, and procedures for evaluation in five educational areas: school systems, schools,

students, programs, and teachers.

This research is concerned with the final area, teacher evaluation. In their book, Looking in Classrooms, Good and Brophy (1984) recognize the importance of the interaction between teacher and student. Although the value of organizationand structure cannot be denied, recent studies (Ingle, 1984; Brophy and Good, 1984; Hawley, 1982; Millman, 1981; and Anderson, Evertson, and Brophy, 1979) indicate that student success is more directly related to quality of instruction than to any other educational variable.

Once jurisdictions define "quality instruction" by employing existing research results, literature reviews, and/or government documents, supervision and evaluation of teaching performance may begin. Systematically collecting and interpreting reliable data from a variety of sources is the key to a thorough teaching performance profile.

Teacher appraisal for professional growth is a major function of the evaluation process. Data collected from various sources may be analysed to provide useful information to teachers as a prerequisite for selecting professional development activities. Studies indicate, e.g., Rothbergh, 1982, that of three variables --control over own destiny, improved working conditions, and increased salary--control of professional future resulted in higher levels of teacher self-esteem and motivation. By becoming more involved in collecting data about their performance, teachers will

become more active in decisions regarding professional development.

Good and Brophy (1984) claim that studies indicate teachers are not always aware of classroom activities. One of the reasons is that frequently no useful formal ongoing system of supervision exists to make teachers aware of their behavior and students' responses to that behavior. Collecting formal data from students regarding their perceptions of teaching performance by using appropriate evaluation instruments may be helpful for a teacher who wishes to realize his/her impact on students. Further, the information presently available on the efficacy of student assessment and self-evaluation of teaching performance is incomplete and sometimes contradictory (Coats & Swierengal, 1972; Fox et al., 1983; Yee, 1970). This study attempted to refine and extend knowledge about the teacher supervision process at the junior high school level.

In review, the public and educators themselves must be satisfied that money spent is resulting in quality education, that supervision of teaching leads to greater teacher performance and awareness, that teachers achieve a higher level of self-esteem and motivation if they are directly involved in performance data collection and analysis, and that formal assessments from students are one information source teachers may employ.

Purpose of Study

The purpose of this research project was to collect, analyse, and document opinions of various student groups regarding teaching

performance at the junior high school level. In addition, information was collected from teachers on self-assessment forms. Finally, comparisons were made between teacher self-evaluation and student perceptions of teaching performance.

Teachers may find that formal instruments completed by students contain valuable information which could contribute to increased awareness of teaching performance and thus improve instruction. Improved instruction, in turn, may result in raising the level of student learning.

Student perceptions of teaching performance were grouped according to several variables: student gender, experience of their teacher, subject, grade level, class size, and teacher's gender (Good & Brophy, 1984; Kounin, 1970). Student and teacher data were compared according to frequency counts and means per instrument statement, and according to the years of professional experience of the teachers. These data attempted to furnish information regarding the following two hypotheses:

HYPOTHESIS 1: There are no significant differences between the opinions of different groups of students regarding teaching performance.

HYPOTHESIS 2: There are no significant differences between students' opinions of teaching performance and teachers' self-evaluations.

This investigation is intended to serve as an exploratory study, with the expectation that the findings will lead to further

examination and will contribute to the existing information base regarding supervision of teaching performance.

Methodology

Collection of data. The present study is of the pre-experimental, comparative type. Ten volunteer teachers at the junior high school level in Westlock School Division #37 each taught three classes. At the conclusion of each lesson, the teacher completed a self-evaluation instrument regarding his performance during that class. At this time, the researcher administered a student opinion form to the pupils. The 636 student response instruments were anonymous.

Instrument. An adaptation of the Student Opinion Form (Educational Testing Service, 1971) was employed for the purpose of collecting data from pupils. This instrument was further adapted for teachers' self-assessment (Appendices A and B). The instrument consists of 22 statements relating to teaching performance. The research subjects indicated their opinions concerning each statement on a five-point scale that ranged from "strongly agree" to "strongly disagree."

Variables. Students' data were grouped according to the following variables:

(a) Sex - to determine whether there were differences between the opinions of male and female students at the junior high school level.

(b) Teacher's years of experience - to determine whether students' opinions of teaching performance were influenced by the teacher's experience.

(c) Subject - to determine whether students' opinions differed depending upon the five subject areas of Mathematics, Language Arts, Science, Social Studies, and Physical Education.

(d) Grade level - to determine whether students' perceptions of teaching performance varied depending upon their grade level.

(e) Class size - to assess the relationship between students' opinions of teaching performance and class size.

(f) Sex of teacher - to establish whether the teacher's gender influenced students' opinions of teaching performance.

Student and teacher frequencies for each instrument statement were compared to determine whether differences existed regarding perceptions of teaching performance.

Data analysis. Data analysis comprised frequency counts for student and teacher information for each of the 22 instrument statements. T-Tests were performed on data to determine if significant differences occurred between the student groups and the student/teacher responses. F-Tests and Sheffe tests were employed to ascertain whether significant differences occurred between three or more variables.

Significance of the Study

The present study is assumed to be significant for the following reasons:

(1) It attempted to provide further insight as to the validity and utility of students' opinions and thus students' perceptions in the evaluation of teaching performance.

(2) It examined some variables which may influence students' opinions of teaching performance.

(3) It furnished information about a possible convenient data source which may be useful to the teacher who wishes to self-evaluate on a continuous basis.

(4) It compared students' opinions to teachers' self-assesaments to determine if significant differences existed.

Research Questions

The intent of the research is to provide information regarding the following questions:

(1) Are students' opinions of teaching performance positive or negative?

(2) Do the opinions of male students and female students differ?

(3) Does the teacher's professional experience influence students' opinion of teaching performance?

(4) Does subject matter affect students' opinions?

(5) Does subject matter affect the opinions of male and female students?

(6) Does grade level affect students' opinions of teaching performance?

(7) Does class size affect students' opinions of teaching performance?

(8) Does the teacher's gender influence students' opinions?

(9) What are the opinions of teachers regarding teaching performance?

(10) What differences, if any, exist between students' opinions of teaching performance and teachers' self-evaluations?

(11) Do years of teaching experience affect students' and teachers' opinions about teaching performance?

Limitations of the Study

The following limitations exist in the present study:

(1) Only one type of school setting was involved. Westlock School Division #37 serves a relatively small rural community. Participating schools ranged from 96 pupils to 630 pupils.

(2) Student groupings were heterogeneous.

(3) Data collected were limited to the instrument used. The instrument employed contains 22 statements relating to selected aspects of teaching behaviors. Teaching performance, however, is composed of much more than 22 behaviors.

(4) Class sizes of 17 to 27 were predetermined by school administration.

(5) Teachers' backgrounds were unmeasured variables except for years of teaching experience.

(6) School climate was determined by variables not controlled by this study.

Delimitations of the Study

Delimitations include the following:

(1) Data were collected in five subject areas: Mathematics, Science, Physical Education, Language Arts, and Social Studies.

(2) Five teachers involved in the study had 0 to 5 years of teaching experience, five had 6 or more years of teaching experience.

(3) Five teachers were male, five were female.

Chapter II

Review of Related Literature

This review of the literature will focus on three main areas of teacher appraisal: (a) teacher evaluation and supervision, (b) teacher self-evaluation, and (c) students' perceptions of teaching performance.

Teacher Evaluation and Supervision

According to a study conducted in 1977 (Holdaway & Reikie), only 18% of Alberta jurisdictions employed teacher evaluation for the purpose of improving classroom instruction. Further, a survey completed by Alberta Education (1975) established that although 90% of schools evaluated first-year teachers, 33% had no provision for assessing tenured staff. In addition, only 55% of those jurisdictions with written evaluation policies actually implemented those policies.

Numerous research studies and educational institutions have dedicated time to investigating the many possible purposes of teaching performance appraisals. Alberta Education suggests that the purpose of teacher evaluation is to "assist in the provision of effective instruction to students and to assist in the professional growth and development of teachers" (Teacher Evaluation Policy, 1984, p. 66). The aim of these evaluations is to further improve school instruction and, thus, contribute to a broader, holistic growth in educational quality.

The Alberta Teachers' Association Members Handbook, 1983, proposes two types of performance appraisals:

> Formative Evaluation - designed to perform a developmental function, the results of which are used to help improve performance or increase potential for performance through identifying areas of strength or areas requiring improvement and growth, and
> Summative Evaluation - designed to perform a judgemental function, the results of which are used for making decisions for the purposes of employment (hiring, continuing contract, promotion, transfer, termination) or certification (permanent certification, suspension of certificate and decertification). (p. 117)

Lerch (1980) also distinguishes between the two purposes of teacher appraisals. He refers to formative evaluation as supervision, the objective of which is to improve instruction. Evaluation, Lerch explains, is an inspection relationship, similar, it seems to the Alberta Teachers' Association definition of summative evaluation stated above. Diamond (1980) offers three objectives in evaluating teaching performance: (a) to enhance the teacher's performance, (b) to improve the teacher's self-image, and (c) to contribute to the improvement of instruction. The recently popular Clinical Supervision model of teacher assessment proposed by Goldhammer, Anderson, and Krajewski (1980) infers that formative evaluation completed by the in-school administrator will positively influence the development of successful teaching performance.

Implicit in all the literature is the reminder that one main purpose of evaluation is to improve instruction, and teaching performance appraisals may satisfy this purpose. Teacher supervision suggests a developmental, formative process in which

data are collected, systematically analysed, and used to assist the teacher in deciding upon future professional development activities.

Reference is made in much of the literature to the importance of teachers continuing to develop professionally throughout their careers. Small (1985) states that society recognizes schools as the agents of change. Ironically, teachers themselves may not be highly involved in growth and development. Research literature further suggests that teachers need to be actively involved in personal assessment by collecting formal and informal data on their own performance with the aid of many sources including self-evaluation and student perceptions (Brown, 1983; Good & Brophy, 1984). These accumulated data, then, will assist teachers in selecting professional development activities according to perceived needs as indicated by analysis of that data.

Teacher Self-Evaluation

Self-evaluation is a tool teachers may employ to furnish needed performance data. Teacher self-assessment is encouraged by many educators and educational organizations, including the Alberta Teachers' Association (1979). According to this organization, Alberta teachers view self-appraisal as the most effective method of examining one's teaching, and the purpose of self-assessment is personal growth. In fact, the ATA Teachers' Policy Manual (1984) states that "teachers have a personal responsibility for their competence" (18.1, p. 177). More teachers are making use of

self-evaluation as a professional tool than in the past, claims Centra (1980). Rothberg (1979) establishes that many studies conducted in the area of teacher motivation have shown teachers' self-esteem increases proportionally if they maintain a sense of control over their professional growth. Teachers who have input as to areas they wish to address in performing a self-assessment are more inclined to become more highly involved in their professional development.

A study conducted by Waimon (1979) suggests a correlation between teacher self-assessment and student achievement. The researchers hypothesized that if teachers were able to monitor the effects of their teaching behavior on student achievement, these teachers would alter their behavior in order to maximize positive effects. Waimon named this self-regulating technique Product Analysis and trained teachers in its use. Upon comparing the test results of a group of teachers and their students who became involved in the Product Analysis technique, with teachers and students who were not involved in this technique, the researchers found that the trained teachers underwent significant behavior improvements, and that pupil achievement of the trained teachers was significantly higher than in the control group.

Ryan and Butler (1982) compiled a review of Canadian institutional experiences regarding effective teaching. Their review shows that Queens University and the Ontario Institute of Studies in Education have examined the impact of teacher

self-assessment. Researchers in both institutions concluded that a more thorough awareness of personal performance was gained by teachers who became involved in formal and informal self-appraisal on a continuous basis.

Teachers' being aware of their negative and positive influences on their students is extremely important. Brown (1983) surveyed 150 college students regarding negative experiences in their lives. Teachers were involved as a negative force more than any other persons. Three main reasons were given: teachers humiliated, teachers destroyed self-confidence, and teachers often had destructive personality conflicts with students. Sadly, many teachers were not aware of the possible detrimental results of their behaviors on their pupils. Jackson (1968) estimated that over 1,000 classroom interactions occur each day for elementary school teachers. Decisions are often made rapidly and continuously throughout each teaching minute. It is certainly conceivable that teachers may be unaware of some student behaviors, of student perceptions regarding classroom activities, and even of their own total teaching performance. Jackson suggested that ongoing supervision will increase teacher awareness of all classroom activities.

Another study that indicated teacher lack of awareness was conducted by Sadker and Sadker (1980) in more than 100 fourth-, sixth-, and eighth-grade classrooms in the United States. The study was concerned with patterns of student/teacher interaction,

specifically teacher praise, acceptance, remediation, and criticism. Results indicated some rather startling phenomena regarding classroom interaction. Approximately 25% of all students in all classes did not participate in any classroom interaction. Another 25% of all students treated classroom discussion as a spectator sport and did not get involved, female students received less teacher attention than did male students, boys were almost eight times as likely as girls to call out in class, and minority students were involved in fewer interactions with teachers than majority students, with minority females having the most infrequent interactions than any other student group. Most teachers involved in this study were surprised to learn these results as stated above. They became aware of possible disparities in their own behaviors and they developed a desire to learn more about their performance in the classroom. Sadker and Sadker concluded that teachers need and want to learn more about educational research and their classroom performance, and that they need supervision to assist them in satisfying those desires.

A study conducted by Olen (1979) involving 316 junior high school students and five teachers in physical education classes resulted in significant evidence confirming that teachers are not always aware of their personal behavior in the classroom. Observers discovered that these teachers were influenced by personal bias. It was evident by observers as to who the favored and unfavored students were, that the same few pupils received

teacher responses on callouts, that favored students received more individual teacher time than unfavored students, and that verbal reinforcement was given to more males than to females.

Awareness of behavior and self-assessment are connected again in an experimental study conducted in 1982 by Robinson. The teacher behavior in this study was 'wait time' for junior high student answers after the teacher had asked a question. The results indicated the impact of wait time on student behavior to be significant. Teacher 'A', for example, found that with a two-second wait time, students gave 14 correct responses, 13 incorrect responses, and 22 no responses. However, upon increasing wait time to five or ten seconds, correct responses increased to 31 and no-response behaviors decreased to four. Generally, teachers involved in Robinson's study felt that conducting a self-appraisal did not disrupt the instructional process, that concentrating on a single behavior was more valuable than concentrating on several behaviors, and that they had become more aware of their classroom interactions.

A variety of collection methods is available to teachers. Iwanicki and McEachern (1984) offer various self-assessment methods that teachers may employ, such as observing videotaped lessons, analysing student appraisal forms, and discussing performance with colleagues, parents, and administrators. Self-appraisals, using a wide variety of data sources, may offer extensive information about

the teacher's open, secret, blind, and undiscovered selves, claim Iwanicki and McEachern. Self-supervision for the purpose of professional growth can be invaluable as this technique allows teachers further input and knowledge regarding directions in development.

Brown (1983) and others propose that teachers may self-assess using many practices, including completing a formal evaluation instrument after a class, writing a description of pupil and personal classroom activities, by viewing videotapes or listening to audio cassettes of one's performance, and/or critiquing lessons and performance. A valuable and inexpensive information sources teachers could employ on a continuous basis throughout the year is student perceptions of teaching performance. Acheson and Gall (1980) suggest that teachers should be encouraged to critically evaluate their performances by gaining insight from data collected through the use of numerous sources, including student perceptions of teaching performance.

Student Perceptions of Teaching Performance

As stated above, formally collected data on teaching behavior from peers, principals, and supervisors are useful in providing a teacher with a complete performance profile. Students may also be a valuable information source. Some educators, however, believe that students are over-influenced by inappropriate teaching performance and personal biases, resulting in a distortion of perceptions, thus rendering student assessments of teaching

behaviors totally unreliable (Coats & Swierengal, 1972; Fox et al., 1983; Yee, 1970). Yee claims that teacher charisma, especially at the grade 7 to 12 levels, inflates students' opinions of teacher performance.

McCaleb and Rosenthal (1983) conducted a study in which students and trained observers rated teacher clarity. Results showed that different groups of students rated the teachers higher the second time they taught the same lesson. However, observer ratings did not show significant differences. A possible explanation, claim the researchers, is that observer appraisal of teaching performance is more accurate than ratings from students.

Conversely, the following studies indicate that students' perceptions of teaching performance, collected on a formal instrument, may be employed as a reliable and valuable data source for teachers who wish to continuously evaluate their performance. In fact, a study conducted by Pinola (1982) determined that student-selected characteristics of positive teaching behaviors paralleled lists of teaching skills developed and used by trained educators for evaluation purposes. One hundred and forty-five high school students were asked to describe the major strengths of their teachers. The results proved consistent and from the data Pinola developed a checklist which is available for use by students to appraise teaching performance.

Cromack and Egleston (1979) have stated, as a result of research, that nobody knows the performance of a teacher more than

the students of that teacher. Rankin (1972) compared student perceptions of school counselor roles with the opinions of administrators, teachers, and parents. Results showed that close correlations existed between the perceptions of the four groups regarding the qualities and behaviors of the ideal counselor. Shock (1960) and Bryan (1963) argue that student ratings of teachers are certainly reliable according to studies they have conducted. Remmers et al. (1960) recommend an average of 25 or more student ratings be used for reliable results.

Recent studies indicate that students perceive enthusiasm to be a valued teacher behavior (Good & Brophy, 1984). Rosenshine and Furst (1979) concluded from several studies that teacher enthusiasm results in pupil enthusiasm which, in turn, causes students to be more attentive and, therefore, higher achievers. Five studies in secondary education completed by McKinney and Larkin (1982) also indicate a relationship between students' perceptions of teacher enthusiasm and student achievement. The results of these studies show that students can indeed perceive differences in teacher enthusiasm, that they prefer higher levels of teacher enthusiasm, and students appear to learn more from lessons taught enthusiastically.

Research has also shown that students possess the ability to differentiate between "positive" and "negative" teaching behaviors and, more importantly, that students' perceptions of teacher performance relate to achievement. Four hundred and forty-eight

high school social studies students took part in a study that linked four teacher behaviors to student achievement and to students' evaluations of teacher performance (Smith, 1985). Students were divided into groups and taught a videotaped lesson on Botswana. Each lesson was identical to the control lesson except for four teacher behavior variables which were (a) teacher uncertainty, (b) notes, (c) teacher bluffing, and (d) lesson discontinuity. At the completion of the lesson, students wrote a comprehensive test and completed a lesson evaluation. Results of this experimental study revealed that teacher uncertainty negatively affected achievement, notes and handouts positively affected achievement, and both teacher bluffing and lesson discontinuity negatively influenced student evaluations of the lesson. Therefore, students could identify teacher bluffing and lesson discontinuity, rated such lessons poorly, and experimental students failed to achieve as high academically as the control group.

Smith et al. conducted two other studies that measured teacher behaviors and student evaluation of lesson effectiveness (Smith & Land, 1981; Smith and Coatten, 1980). The results of both studies indicate that high frequencies of vagueness terms used by the teacher (ah, umm, maybe, I'm not sure, perhaps, well) cause secondary students to perceive the lesson as ineffective.

Not only can students identify some ineffective teaching behaviors (Smith, 1985; Pinola, 1982), but feedback from students

regarding these behaviors can positively influence teacher behavior, as a study conducted in the medical field indicates (Stillman, Gillers, Heins, Nicholson, & Sabers, 1983). Students evaluated a lesson and instructors received feedback from the data. The teachers taught the same lesson again to a different group of students, and again were evaluated. This same lesson resulted in significantly higher student ratings of teacher performance and lesson effectiveness the second time it was taught, i.e., after teachers had received the students' feedback. The authors of this medical study believe that student feedback is a powerful teacher evaluation technique and can result in changes leading to course improvement.

Towler (1968) asked high school students the question, "What makes a good teacher?" The most frequent responses included: good teachers communicated well; showed real affection; talked to, not down, to students; loved their subject; knew their subject thoroughly; were flexible regarding the lesson; used outside sources beyond the textbook; and were strict, demanding and in control of the classroom. These teacher characteristics and behaviors certainly appear on evaluation forms, further suggesting that students realize the differences between good and poor teaching behaviors.

For her thesis, Failure Students Speak About School, Schloegl (1973) gathered information from 80 students attending W. P. Wagner High School in Edmonton, Alberta. She asked students to list the

traits of good teachers and the traits of poor teachers. The most frequently listed items were: good teachers were concerned, helpful, clear in giving instructions, appreciative of student efforts, and interesting. Again, these behaviors and characteristics would correspond to a list of behaviors and characteristics of effective teachers prepared and employed by supervisors of instruction.

Although some students may be influenced by personal bias, and others by teacher charisma, studies have determined that students' opinions of teaching performance are often reliable and valuable sources of information which a teacher may employ as part of the self-appraisal process.

Summary

In summary, the literature on supervision of teaching performance suggests that teachers should be supervised and thus formally evaluated throughout their teaching careers and that these appraisals do, in fact, assist teachers in incrasing their levels of awareness and self-development. People involved in collecting data on formal instruments could include superintendents, school administrators, peers, oneself, and students. Self-assessment of performance helps teachers to become increasingly and continuously aware of classroom activities and their influences on student behaviors and development. Appropriate selection of professional development activities is also an important purpose of self-assessment.

Because students are capable of discriminating between positive and negative teaching performances, formal opinion instruments completed by students are valid, reliable, and convenient information sources for teachers in the self-appraisal procedure.

Chapter III

Research Design

This chapter outlines study procedures, specifies the sample, elaborates on the instrument, and describes the nature of data analysis. The present investigation is of the pre-experimental, comparative mode involving students and teachers from junior high schools in Westlock School Division #37. Westlock is a rural community in north-central Alberta which depends heavily on the farming and oil industries. Due, in part, to economic fluctuations in agriculture and oil, the population in the area has stabilized over the past five years. Nevertheless, the school system is progressive, consistently encouraging new developments in the educational field.

Procedure

I met with the ten volunteer teachers to introduce the purposes and procedures of the investigation. At this time also, a schedule was developed to determine the classes which would become involved in the collection of data.

Each of the ten teachers taught three lessons to different groups of students. At the conclusion of each class, the teacher retired to the teachers' lounge or elsewhere to complete the Teacher Self-evaluation form. I remained with the pupils and administered the Student Opinion Form. Data collection took five weeks.

Some students were used more than once to appraise different

teachers. No student assessed the same teacher twice. Students completed the forms within a 15-minute period and student responses remained anonymous.

Analysis of data involved calculating frequencies of responses for each of the 22 instrument statements and analysis of variance to determine the degree to which group responses differed from each other.

The Sample

Junior high school students and teachers from the Westlock School Division #37 were used in the study. Westlock School Division consists of approximately 2110 students, 129 teachers and nine schools. Three schools are in the town of Westlock, the other six are situated in rural communities within 100 kilometres of the town. Five of the schools teach children at the junior high level. The total population of students in grades seven, eight, and nine through the jurisdiction is 522.

a) Student sample. Students of the ten volunteer teachers were used in this study and heterogeneous classroom grouping is practised in all the schools. The number of student responses totalled 636: 333 from male students (52.4%), 303 from female students (47.6%).

Regarding the student sample, 21.4% (136) of the respondents were from grade seven, 41.2% (262) from grade eight, and 37.4% (238) from grade nine.

One hundred and nineteen, or 18.7%, of the sample responses

came from classes of fewer than 20 students, 517 or 81.3% from classes of 21 to 27 pupils.

The percentages of students' responses according to subject areas were as follows: Social Studies, 31.3% (199); Language Arts, 20.4% (130); Science, 16.7% (106); Mathematics, 16.4% (104); and Physical Education, 15.3% (97).

b) Teacher sample. The sample of teachers comprised five males and five females. Five of the teachers had five years of teaching experience or less, and five had six or more years of professional experience.

Test Instrument

For the purposes of this study, a modification of the STUDENT OPINION FORM (Educational Testing Service, 1971) was utilized (Appendix A). This form was further adapted for teacher self-evaluation use (Appendix B). For example, "Teacher began this class promptly" on the student form was altered to "I began this class promptly" on the teacher form; "Teacher talked too much during class" became "I talked too much during class."

Respondents were directed to read each of the 22 statements and check under the appropriate column as to whether they "strongly agreed," "agreed," "disagreed," "strongly disagreed," or whether they had "no opinion" regarding the statements about teaching performance.

Information relating to student/teacher gender, subject, grade level, class size, and teacher years of experience was also

recorded.

The instrument itself consisted of 22 statements. Seventeen of these related to positive teaching behaviors such as "Teacher began class promptly," "Teacher was well organized," and "Teacher kept the class under control to allow us to learn." Two of the instrument statements related to negative teaching behaviors: "Teacher talked too much about personal problems" and "Teacher spent too much time talking." Another two statements related to whether the homework assigned was worthwhile and whether the amount of homework was appropriate. Finally, students were asked to respond to a general statement about the class as a place they liked to be.

Data Analysis

The type of analysis possible was determined by the sample sizes and the number of variables being considered. A two-way analysis of variance with repeated measures was performed to determine significant difference between the responses of student groups and student/teacher data.

Survey responses were subjected to four types of analysis in order to provide information pertinent to the research questions. Data were analysed as follows:

a) Frequency analysis determined the percent of responses to each response category for each of the 22 items. A value of 5 was assigned to "strongly agree"; 4 to "agree"; 3 to "no opinion"; 2 to "disagree"; and a value of 1 to "strongly disagree" responses.

Means and standard deviations with regard to student and teacher responses for each of the 22 instrument statements were calculated. A mean of 4.55 indicated that the majority of the sample agreed or strongly agreed with that particular survey statement; a mean of 1.27 indicated that the majority of the sample disagreed or strongly disagreed with that survey item.

b) T-Tests established which sample means differed significantly from each other. For example, scores from T-tests determined if significant differences existed between the opinions of males and females for each of the instrument statements.

c) Scheffe analysis compared more than two variables within the same group, such as determining all, female, and male student responses according to class size.

d) F-Tests were performed to determine whether several variables differentiated from each other, for example, comparing student responses to the five subjects.

Findings and tables containing results of the data analyses are to be found in the following chapter.

Chapter IV

Findings

Chapter IV concerns itself with restating the research questions and relating study findings to these questions.

Research Question #1: Are students' opinions of teaching performance positive or negative?

Table 1 offers information regarding the percentages of students who strongly agreed, agreed, disagreed, strongly disagreed or who had no opinion regarding each of the 22 instrument statements. Means are also presented in Table 1.

With the exception of two of the items, all of the means ranged from 3.75 to 4.53, indicating that the majority of students agreed or strongly agreed with 20 of the instrument statements.

Over 63% of the sample students strongly agreed that the teacher seemed to know the topic, 54.4% of the students strongly agreed that their teacher was well organized, 45.8% strongly agreed that their teacher kept the class under control, and 44.5% strongly agreed that their teacher began class promptly.

Strong agreement of students' opinions was also apparent regarding the teachers' attempts to make their classes interesting (43.6%), the appropriateness of the amount of homework assigned (40.6%), the lack of teacher favoritism (40.4%), and worthwhile homework (35.1%).

A total of 68.6% of the 636 student responses indicated student agreement or strong agreement with the statement "This

Table 1

Student Frequencies for Each Variable (n=636)

	VALUES IN PERCENT					
	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree	MEAN
1. Helped me to be interested	27.5	50.3	6.0	11.0	5.2	3.84
2. I tried to participate	37.3	51.3	4.4	5.3	1.7	4.17
3. Teacher began class promptly	44.5	38.8	4.1	9.7	2.8	4.12
4. Teacher knew today's topic	63.5	29.7	3.9	2.2	0.8	4.53
5. Teacher was well organized	54.4	35.8	3.8	3.9	2.0	4.37
6. Homework was worthwhile	35.1	27.8	20.8	10.2	6.1	3.76
7. Homework amount appropriate	40.6	30.2	14.3	9.3	5.7	3.91
8. I am graded fairly	39.5	43.6	7.4	6.9	2.7	4.10
9. No student favorites	40.4	33.8	6.4	9.0	10.4	3.85
10. Reasonable in expectations	41.0	44.0	5.7	7.1	2.2	4.15
11. Understanding and concern	38.7	41.8	8.3	8.0	3.1	4.05
12. Respect different opinions	39.5	42.8	9.1	5.2	3.5	4.10
13. Talked too much-personal	5.0	8.0	8.3	21.2	57.4	1.82
14. Explained lesson clearly	41.2	43.6	3.8	7.9	3.6	4.11
15. Opportunity to express	34.0	39.3	11.8	10.2	4.7	3.88
16. Talked too much	7.7	11.6	6.8	36.2	37.7	2.15
17. Helped me to learn material	32.9	43.2	10.4	9.7	3.8	3.92
18. Used different methods	28.1	41.2	13.2	13.1	4.4	3.76
19. Listened, tried to understand	39.3	43.6	7.9	6.3	3.0	4.10
20. Kept the class under control	45.8	42.6	3.3	5.5	2.8	4.23
21. Kept the class interested	43.6	37.9	5.8	8.5	4.2	4.08
22. Class a place I liked to be	39.8	28.8	10.8	7.4	13.2	3.75

class was a place I liked to be," 20.6% disagreed or strongly disagreed with that statement, and 10.8% of the students had no opinion.

Statements numbered 13 and 16 relate to negative teaching behaviors. Approximately 57% of the students strongly disagreed with the statement, "Teacher talked too much about personal problems during class time." Over 73% of the students disagreed or strongly disagreed with the statement that the teacher talked too much during class.

In response to the first research question, students appear to hold a positive opinion about teaching performance. Students agreed or strongly agreed with each other regarding the 17 survey statements relating to positive teaching behaviors. Student agreement was high as well, with respect to opinions about negative teaching performance. They disagreed or strongly disagreed with the checklist statements concerning teacher talk, indicating that they did not believe their teachers talked too much during class, about either personal problems or anything else. The two statements about homework also resulted in a majority of the students agreeing or strongly agreeing that the homework assigned was worthwhile and the amount was appropriate.

Research Question #2: Do the opinions of male students and female students differ?

Results indicated that significant differences of opinion between male and female students of the sample group do, indeed,

exist (Table 2). Females rated their teachers higher than did their male peers in 19 of the 22 items. Significant differences between male and female opinions occurred in seven of the 22 instrument statements.

The data indicated that females rated their teachers moderately and significantly higher than did males on five of the survey statements: #1, "Teacher helped me to become interested in the topic"; #6, "Homework assigned was worthwhile"; #7, "Amount of homework was appropriate"; #12, "Teacher respected different opinions"; and #22, "This was a place I liked to be." The largest differences of opinions between male and female students involved statements 6 and 7, which refer to homework. These results indicated that females hold more positive opinions about homework than do males at the junior high school level.

This analysis suggests, therefore, that females may view teaching performance more positively than do males at the seven, eight and nine grade levels.

Research Question #3: Does the teacher's professional experience influence students' opinions of teaching performance?

Student data were divided into two groups according to the number of years their teachers had taught and the differences in opinions regarding each aspect of teaching were examined (Table 3). This information was further divided into male students' and female students' responses.

Table 2

Mean Scores of Male and Female Students

	Male Mean (n=333)	Female Mean (n=303)
1. Helped me to be interested	3.75	3.93*
2. I tried to participate	4.15	4.19
3. Teacher began class promptly	4.06	4.19
4. Teacher knew today's topic	4.48	4.58
5. Teacher was well organized	4.30	4.44
6. Homework was worthwhile	3.61	3.92*
7. Homework amount appropriate	3.76	4.07*
8. I am graded fairly	4.05	4.16
9. No student favorites	3.84	3.86
10. Reasonable in expectations	4.10	4.20
11. Understanding and concern	4.00	4.11
12. Respect different opinions	4.01	4.18*
13. Talked too much-personal	1.95*	1.68
14. Explained lesson clearly	4.05	4.18
15. Opportunity to express	3.89	3.86
16. Talked too much	2.30*	1.99
17. Helped me to learn material	3.85	3.99
18. Used different methods	3.71	3.81
19. Listened, tried to understand	4.05	4.16
20. Kept the class under control	4.16	4.30
21. Kept the class interested	4.02	4.14
22. Class a place I liked to be	3.59	3.91*

Note. * $p < .05$

Table 3

Mean Student Scores By Teacher Years of Experience

	ALL STUDENT MEANS		MALE STUDENT MEANS		FEMALE STUDENT MEANS	
	Students a (n=318)	Students b (n=318)	Students a (n=165)	Students b (n=168)	Students a (n=153)	Students b (n=150)
1. Helped me to be interested	3.76	3.91	3.69	3.82	3.85	4.02
2. I tried to participate	4.17	4.17	4.16	4.14	4.19	4.20
3. Teacher began class promptly	3.40	4.25*	3.92	4.20*	4.08	4.31*
4. Teacher knew today's topic	4.42	4.64*	4.35	4.61*	4.50	4.66*
5. Teacher was well organized	4.28	4.46*	4.23	4.38	4.33	4.55*
6. Homework was worthwhile	3.61	3.90*	3.49	3.73	3.74	4.09*
7. Homework amount appropriate	3.87	3.95	3.67	3.85	4.08	4.05
8. I am graded fairly	4.02	4.19	3.90	4.20*	4.14	4.17
9. No student favorites	3.80	3.90	3.76	3.92	3.84	3.89
10. Reasonable in expectations	4.09	4.20	3.96	4.23*	4.23	4.17
11. Understanding and concern	4.01	4.09	3.87	4.12*	4.16	4.05
12. Respect different opinions	4.09	4.10	3.98	4.05	4.21	4.16
13. Talked too much-personal	1.78	1.86	1.96	1.93	1.59	1.78
14. Explained lesson clearly	4.06	4.16	3.97	4.12	4.16	4.20
15. Opportunity to express	3.89	3.86	3.80	3.97	3.99*	3.73
16. Talked too much	2.12	2.19	2.23	2.37	2.00	1.99
17. Helped me to learn material	3.89	3.94	3.72	3.97*	4.08	3.91
18. Used different methods	3.70	3.81	3.68	3.74	3.73	3.89
19. Listened, tried to understand	4.08	4.12	3.99	4.10	4.16	4.15
20. Kept the class under control	4.10	4.36*	4.02	4.30*	4.18	4.43*
21. Kept the class interested	4.06	4.10	4.00	4.04	4.11	4.17
22. Class a place I liked to be	3.77	3.72	3.58	3.61	3.97	3.85

Note. Students a = Students of Teachers having 0 - 5 years of teaching experience.
Students b = Students of Teachers having 6 + years of teachers experience.
* $p < .05$

Teachers with a minimum of six years of teaching experience received higher ratings from their students than teachers with fewer than six years of teaching experience received from their students regarding 18 of the 22 instrument statements. Significant differences between the students of teachers with one to five years of teaching experience and those of teachers with six or more years of experience occurred in seven of the survey items.

Students of teachers with six or more years of experience rated their teachers significantly higher than did the other student group on item 4--the teacher knew the day's topic, and on item 20--the teacher kept the class under control.

Significant differences were observed between the results of the two student groups regarding statements #3, "Teacher began class promptly," and #6, "Homework was worthwhile." Again, students of teachers with over five years of experience rated their teachers higher than did the student group with less experienced teachers.

Students of teachers with more experience were in greater agreement that their teacher was well organized, that the homework assigned was appropriate, and that they were graded fairly in their class, than did students of the more inexperienced teachers.

Male students of the more experienced teachers rated their teachers higher than did the group of students with less experienced teachers in 20 of the instrument statements.

Significant differences between the opinions of the two groups

of male students were observed in seven statements, with the pupils of the more experienced teachers rating the performance of their teachers at a higher level than did the other male student group.

Parallels between the data of all students and the data of male students are apparent, with the exceptions of statements 10, 11, and 17. Whereas significant differences between the opinions of the two "all student" groups did not occur regarding these three statements, significant differences are apparent between the two groups of male students. Male students of more experienced teachers agreed to a significantly higher rating of teaching performance than did students of less experienced teachers regarding the following: their teachers were reasonable in their expectations, their teachers showed understanding and concern, and their teachers helped them to learn the material.

Differences of opinions between the female students of teachers with one to five years' experience and female students of teachers with six or more years of teaching experience were observed. As with the results of all students and male students, female pupils of teachers with six or more years of experience rated their teachers higher on the majority of survey statements (13) than did female students of teachers with fewer than six years of teaching experience.

Significant differences existed between the opinions of the two female groups involving six of the survey statements. Results correspond to the opinions of all students with the exception of

one statement. Female students of the more experienced teachers agreed to a greater degree than did the all students and male students that they had opportunity to express themselves in class.

Research Question #4: Does subject matter affect students' opinions?

To determine whether subject influenced students' opinions of teaching performance, an F-Test was completed (Table 4). Significant differences in student ratings of teaching performance by subject were observed in 14 of the 22 instrument statements.

Students in physical education and mathematics rated their teachers higher on statement #1, "Teacher helped me to be interested in topic," than did students in social studies.

Physical education students rated their teachers significantly higher on statement #2, "There was opportunity to participate in class," than did students in language arts, social studies and science.

Responses for statement #3, "Teacher began class promptly," indicated that mathematics students rated their teachers' performance significantly higher than did students of social studies teachers.

Mathematics students also rated their teachers' performances higher than did science students on statement #6, "Homework assigned was worthwhile." For statement #8, "I am graded fairly in this class," significant differences were observed between the

Table 4

Mean Student Scores by Subject

	Mathematics (n=104)	Science (n=106)	Language Arts (n=130)	Social Studies (n=190)	Physical Education (n=97)
1. Helped me to be interested	4.07*	3.92	3.68	3.65a	4.09*
2. I tried to participate	4.21	4.19c	3.98a	4.10b	4.55*
3. Teacher began class promptly	4.38*	4.07	4.08	4.00a	4.24
4. Teacher knew today's topic	4.61	4.48	4.53	4.48	4.58
5. Teacher was well organized	4.49	4.27	4.38	4.35	4.34
6. Homework was worthwhile	4.11*	3.46a	3.68	3.78	3.78
7. Homework amount appropriate	4.05	3.75	3.95	3.78	4.13
8. I am graded fairly	4.39*	4.05	3.98a	4.03	4.15
9. No student favorites	3.85	4.00	3.90	3.61a	4.10*
10. Reasonable in expectations	4.28	4.10	4.11	4.01a	4.38*
11. Understanding and concern	4.26	3.99	4.02	3.91	4.21
12. Respect different opinions	4.31*	3.92a	4.12	4.05	4.10
13. Talked too much-personal	2.08*	1.87	1.57a	1.75	1.98
14. Explained lesson clearly	4.23	4.21	3.99	4.02	4.21
15. Opportunity to express	3.95	3.89	3.65	3.81	3.95
16. Talked too much	2.23	2.11	2.21	2.16	2.03
17. Helped me to learn material	4.11	3.98	3.74a	3.77	4.20*
18. Used different methods	4.00	3.77	3.48a	3.65b	4.06*
19. Listened, tried to understand	4.29	4.07	4.02	4.05	4.13
20. Kept the class under control	4.58*	4.16b	4.13a	4.06	4.41*
21. Kept the class interested	4.10	4.08	3.93a	4.02b	4.40*
22. Class a place I liked to be	3.85	3.62c	3.50a	3.53b	4.04*

Key. * - Significant difference between these results and other results.
a, b, c - Results which differ significantly from *.
* $p < .05$

responses of mathematics, language arts, and social studies students.

Physical education students rated their teachers' performances higher than did social studies students on statements #9, "Teacher did not treat students as favorites," and #10, "Teacher was reasonable in his/her expectations."

Mathematics students rated their teachers' performances significantly higher on statement #12, "Teacher respected differences of opinions," than did students in science.

Analysis regarding statement #17 indicated that students in physical education rated the behavior "teacher helped me to learn material" significantly higher than did students in language arts and social studies.

Responses to statement #18, "Teacher used different methods of teaching," indicated that physical education students rated their teachers significantly higher than did language arts students and social studies students. Mathematics students also rated their teachers significantly higher on this teaching behavior than did language arts students.

Students in mathematics rated teacher performance significantly higher regarding the behavior in statement #20, "Teacher kept the class under control," than did students in social studies, language arts, and science. Physical education students gave a significantly higher rating for statement #20 than did social studies students.

Physical education students rated their teachers' performances higher than did language arts students and social studies students on statement #21, "Teacher kept the class interesting."

Results regarding statement #22, "This class was a place I liked to be," indicate that physical education students agreed or strongly agreed with this statement to a significantly greater degree than did students in language arts, social studies, and science.

The opinions of students in science, language arts and social studies did not differ significantly from each other. However, the opinions of students in mathematics and physical education did differ from the other three subject groups. Therefore, in answer to the fourth research question of this study, subject appears to influence students' opinions of teaching performance. Students in physical education and mathematics hold higher opinions of their teachers' performance than do students in science, social studies, and language arts.

Research Question #5: Does subject matter affect the opinions of male and female students?

When male student responses were divided according to subject matter, significant differences of opinions appeared in the results of four of the checklist items (Table 5). Males in physical education rated performance higher regarding statement #2, "Teacher gave opportunities to participate in this class," than did students in language arts, science, and social studies.

Table 5

Mean Male Student Scores by Subject

	Mathematics (n=55)	Science (n=50)	Language Arts (n=69)	Social Studies (n=106)	Physical Education (n=53)
1. Helped me to be interested	3.95	3.86	3.68	3.57	3.92
2. I tried to participate	4.20	4.08b	3.84a	4.13c	4.60a
3. Teacher began class promptly	4.20	3.98	4.01	4.02	4.17
4. Teacher knew today's topic	4.64	4.42	4.46	4.46	4.43
5. Teacher was well organized	4.49	4.28	4.32	4.30	4.38
6. Homework was worthwhile	3.89	3.32	3.36	3.78	3.88
7. Homework amount appropriate	3.85	3.52	3.63	3.73	3.89
8. I am graded fairly	4.42a	3.88	3.84a	4.03	4.15
9. No student favorites	3.71	4.02	3.84	3.68	4.11
10. Reasonable in expectations	4.20	4.14	3.99	4.03	4.28
11. Understanding and concern	4.18	3.94	3.97	3.90	4.09
12. Respect different opinions	4.27	3.78	4.22	3.93	3.89
13. Talked too much-personal	2.20	1.88	1.67	1.90	2.21
14. Explained lessons clearly	4.18	4.16	3.96	3.95	4.13
15. Opportunity to express	4.07	3.88	3.86	3.81	3.89
16. Talked too much	2.42	2.16	2.38	2.35	2.21
17. Helped me to learn material	4.15	3.82	3.75	3.67	4.06
18. Used different methods	3.89	3.68	3.45	3.69	3.91
19. Listened, tried to understand	4.20	4.18	4.00	3.93	4.08
20. Kept the class under control	4.18a	3.90a	4.10	4.03b	4.32
21. Kept the class interested	3.96	4.14	3.87	3.95	4.32
22. Class a place I liked to be	3.60c	3.62	3.23a	3.32b	4.87a

Key. a - Significant difference between these results and other results.
b, c - Results which differ significantly from a.
a $p < .05$

Male students in mathematics rated their teachers' performances on the eighth statement, "I am graded fairly in this class," significantly higher than did male students in language arts. Male students rated the behavior "Teacher kept the class under control" significantly higher than did science and social studies students. Also, male students in physical education gave a significantly higher rating than did students in language arts, social studies, and mathematics to the statement that this class was a place they liked to be.

Table 6 displays the data regarding female student responses according to subject. Significant differences between female student opinion resulted when grouped according to subject in nine of the 22 form items.

Opinions of female students in physical education differed significantly from language arts and social studies students regarding statement #1, "Teacher helped me to be interested in the topic." Higher teaching performance ratings were apparent in the physical education results.

Results of statement #3, "Teacher began class promptly," indicated that female students in mathematics rated their teachers significantly higher than did students in social studies. Female students also agreed that "homework was worthwhile" in mathematics to a significantly higher degree than did students in science and social studies.

Female physical education students agreed to a higher degree

Table 6

Mean Female Student Scores by Subject

	Mathematics (n=49)	Science (n=56)	Language Arts (n=61)	Social Studies (n=93)	Physical Education (n=44)
1. Helped me to be interested	4.38	3.98	3.84a	3.75b	4.30*
2. I tried to participate	4.22	4.29	4.08	4.06	4.48
3. Teacher began class promptly	4.57*	4.16	4.15	3.98a	4.32
4. Teacher knew today's topic	4.59	4.54	4.61	4.49	4.75
5. Teacher was well organized	4.59	4.34	4.44	4.41	4.41
6. Homework was worthwhile	4.37*	3.98a	4.03	3.73b	4.07
7. Homework amount appropriate	4.27	3.95	4.08	3.85a	4.43*
8. I am graded fairly	4.37	4.21	4.13	4.03	4.16
9. No student favorites	4.08	3.98	3.97	3.84	4.09
10. Reasonable in expectations	4.37	4.07	4.25	3.99a	4.55*
11. Understanding and concern	4.35	4.04	4.07	3.94	4.34
12. Respect different opinions	4.37	4.05	4.03	4.19	4.36
13. Talked too much-personal	1.94	1.86	1.48	1.56	1.70
14. Explained lesson clearly	4.33	4.27	4.03	4.09	4.30
15. Opportunity to express	3.81	3.89	3.84	3.82	4.02
16. Talked too much	2.02	2.07	2.16	1.95	1.82
17. Helped me to learn material	4.06	4.09	3.74a	3.89	4.36*
18. Used different methods	4.12*	3.98	3.52a	3.61b	4.23*
19. Listened, tried to understand	4.28	3.96	4.03	4.19	4.23
20. Kept the class under control	5.47*	4.38	4.16	4.18a	4.52
21. Kept the class interested	4.22	4.02	4.00	4.09	4.50
22. Class a place I liked to be	4.12	3.63a	3.80	3.77b	4.50*

Note. * - Significant difference between these results and other results.
a, b, c - Results which differ significantly from *.
* $p < .05$

that the amount of homework was appropriate than did social studies students. Physical education students agreed to a higher rating than did science students on statement #10 "Teacher was reasonable in his/her expectations."

Data involving statement #17, "Teacher helped me to learn material," indicated that physical education students rated their teachers higher than did language arts students. Both physical education and mathematics female responses differed significantly from the other responses regarding statement #18, "Teacher used different methods of teaching": physical education ratings differed significantly from language arts and social studies; mathematics responses differed significantly from language arts.

Female physical education students agreed with statement #22, "This class was a place I liked to be," to a significantly greater degree than did science or social studies students.

Differences between male student opinions and female student opinions of teaching performance with respect to subject matter do exist. Significant differences between the opinions of the five groups of male students were observed regarding four of the survey statements. Opinions differed significantly between the five female student groups regarding nine of the instrument items. Relating to statement #22, "This class was a place I liked to be," male students had the lowest rating for the subject of language arts; the lowest rating for females was for the subject of science.

Parallels were apparent, however, between the female and male

student data. Both student groups rated the teaching performances higher in physical education compared to the other four subjects. No significant differences were observed among the data regarding the subjects of science, language arts, and social studies in male and female student groups. In addition, male and female students in this sample experienced a high level of agreement relating to physical education class as a place they liked to be compared to the other four subject areas.

Research Question #6: Does grade level affect students' opinions of teaching performance?

To determine any significant differences among the opinions of students at various grade levels, student results were compared using an F-Test as outlined in Table 7. Data indicate that grade eight students rated the performances of their teachers higher than did grades seven and nine students. Significant differences were observed between grade eight students and the opinions of grade seven and nine students with respect to 17 of the statements.

Both grades seven and eight students rated the performances of their teachers significantly higher than did grade nine students on statement #21, "Teacher kept the class interesting."

The data indicated that grade level is related to students' opinions of teaching performance, with grade eight students holding a more positive opinion of teacher performance as compared to the opinions of grades seven and nine students.

Table 7

Mean Scores by Grade Level

	MEAN		
	Grade 7 (n=136)	Grade 8 (n=262)	Grade 9 (n=238)
1. Helped me to be interested	3.60	4.17**	3.61
2. I tried to participate	4.12	4.34**	4.02
3. Teacher began class promptly	4.08	4.20	4.06
4. Teacher knew today's topic	4.40	4.59*	4.53
5. Teacher was well organized	4.17	4.49*	4.34
6. Homework was worthwhile	3.52	3.89*	3.74
7. Homework amount appropriate	3.66	4.07*	3.87
8. I am graded fairly	3.96	4.23*	4.04
9. No student favorites	3.88	3.90	3.78
10. Reasonable in expectations	4.10	4.26*	4.04
11. Understanding and concern	3.94	4.26**	3.88
12. Respect different opinions	3.91	4.26**	4.02
13. Talked too much-personal	1.88	1.87	1.74
14. Explained lesson clearly	3.96	4.30**	3.98
15. Opportunity to express	3.72	4.01*	3.82
16. Talked too much	2.13	2.06	2.28
17. Helped me to learn material	3.79	4.18**	3.70
18. Used different methods	3.56	4.08**	3.51
19. Listened, tried to understand	4.04	4.24	3.97
20. Kept the class under control	4.05	4.36*	4.19
21. Kept the class interested	4.15*	4.31*	3.79
22. Class a place I liked to be	3.54	4.11*	3.45

Note. * - Significant difference between results.
** - Significant difference between two results.
* $p < .05$

Research Question #7: Does class size affect students' opinions of teaching performance?

Information regarding student responses to the 22 statements according to class size was collected. Responses from students in classes which were comprised of up to 20 pupils numbered 119; students in classes of 21 and over numbered 517. The maximum class size was 27 students (Table 8).

Data indicated that significant differences in results occurred between the students of smaller and larger class sizes in four of the items. Students in larger classes--over 21 pupils--rated teacher performance high regarding the behaviors in statements #5, "Teacher was well organized," #12, "Teacher respected different opinions," and #19, "Teacher listened and tried to understand," whereas students in smaller classes--fewer than 21--recorded greater agreement on statement #13, "Teacher talked too much about personal problems."

In response to research question #7 regarding the relationship of class size to students' opinions, results suggested that class size does have some relationship to students' opinions and that students in larger classes rated the performances of their teachers consistently higher than did students in smaller classes. Students who attended larger classes appeared to have a higher opinion of their teachers' performances than did students of teachers with fewer than 20 pupils.

Table 8

Mean Scores by Class Size

	MEAN	
	Students a (n=119)	Students b (n=517)
1. Helped me to be interested	3.82	3.85
2. I tried to participate	4.27	4.15
3. Teacher began class promptly	4.29	4.09
4. Teacher knew today's topic	4.44	4.55
5. Teacher was well organized	4.13	4.42*
6. Homework was worthwhile	3.74	3.76
7. Homework amount appropriate	3.80	3.93
8. I am graded fairly	3.98	4.13
9. No student favorites	3.91	3.84
10. Reasonable in expectations	4.01	4.18
11. Understanding and concern	3.91	4.08
12. Respect different opinions	3.93	4.13*
13. Talked too much-personal	2.03*	1.77
14. Explained lesson clearly	3.96	4.14
15. Opportunity to express	3.84	3.88
16. Talked too much	2.13	2.16
17. Helped me to learn material	3.86	3.93
18. Used different methods	3.70	3.77
19. Listened, tried to understand	3.92	4.14*
20. Kept the class under control	4.26	4.22
21. Kept the class interested	4.08	4.08
22. Class a place I liked to be	3.20	3.76

Note. Students a = Student results from classes with 0 - 20 pupils. Students b = Student results from classes with 21 to 27 pupils.
* $p < .05$

Research Question #8: Does the teachers' gender influence student opinions?

To determine whether the gender of the teacher is related to the manner in which the students responded to each form item, student results were subjected to a T-Test in which responses from students of male teachers were compared to responses from students of female teachers (Table 9). Results indicated that significant differences occurred in only one statement: #6, "Homework assigned was worthwhile." Students of female teachers agreed to a significantly greater degree that homework was worthwhile than did students of male teachers.

Noteworthy is the fact that students of male teachers rated teaching performance higher in 11 of the 22 instrument statements and that students of female teachers rated their teachers higher in the remaining 11 items. The apparent balance of student responses seemed to indicate that gender of the teacher may have little influence on students' opinions of teaching performance. The data was further analysed to determine if differences existed between male/female student responses to female teachers and male/female student responses to male teachers.

To determine whether male students responded differently than did female students to a female teacher, a T-Test was performed on their data. Results found in Table 10 indicated that significant differences between the ways in which the two groups responded to a female teacher did occur in seven of the statements.

Table 9

Mean Responses to Male and Female Teachers

	MEAN	
	Students a (n=330)	Students b (n=306)
1. I helped students to be interested in topic	3.84	3.84
2. Students tried to participate	4.19	4.14
3. I began class promptly	4.13	4.12
4. I displayed familiarity with material	4.53	4.52
5. I was well organized	4.33	4.41
6. Homework assigned was worthwhile	3.64	3.88*
7. Amount of homework was appropriate	3.82	4.00
8. I graded my students fairly in this class	4.08	4.13
9. I did not treat students as favorites	3.90	3.79
10. I was reasonable in my expectations	4.15	4.14
11. I showed understanding and concern	4.02	4.08
12. I respected difference of opinions	4.03	4.17
13. I talked too much about personal problems	1.85	1.80
14. I explained lesson clearly	4.14	4.07
15. I gave opportunities to students to express	3.91	3.84
16. Spent too much time talking	2.21	2.09
17. I help students learn material	3.92	3.91
18. I used different ways to help students learn	3.71	3.81
19. Listened and tried to understand	4.06	4.15
20. I kept class under control	4.26	4.20
21. I made class interesting	4.04	4.12
22. This class was a place students liked to be	3.68	3.81

Note. Students a = Students of male teachers. Students b = Students of female teachers.
* $p < .05$

Table 10

Mean Responses to Female Teachers

	Male Students (n=162)	Female Students (n=144)
1. I helped students to be interested in topic	3.73	3.97
2. Students tried to participate	4.11	4.18
3. I began class promptly	4.00	4.26*
4. I displayed familiarity with material	4.48	4.58
5. I was well organized	4.33	4.49
6. Homework assigned was worthwhile	3.70	4.09*
7. Amount of homework was appropriate	3.92	4.08
8. I graded my students fairly in this class	4.05	4.22
9. I did not treat students as favorites	3.70	3.90
10. I was reasonable in my expectations	3.99	4.31*
11. I showed understanding and concern	4.01	4.16
12. I respected difference of opinions	4.10	4.24
13. I talked too much about personal problems	1.88	1.69
14. I explained lesson clearly	3.95	4.21*
15. I gave opportunities to students to express	3.85	3.82
16. Spent too much time talking	2.29*	1.87
17. I help students learn material	3.82	4.01
18. I used different ways to help students learn	3.74	3.88
19. Listened and tried to understand	4.04	4.25
20. I kept class under control	4.14	4.26
21. I made class interesting	4.03	4.23
22. This class was a place students liked to be	3.57	4.08*

Note. * $p < .05$

Female students rated their female teachers' performances significantly higher than did male students in six of the statements. Female students agreed more than male students that their teachers helped them become interested in the day's topic, that female teachers began class promptly, that assigned homework was worthwhile, that their teachers were reasonable in their expectations, that their teachers explained the lessons clearly and that their class was a place they liked to be.

Male students of female teachers agreed to a significantly greater degree to statement #16, "Teacher spent too much time talking," than did their female counterparts.

Table 11 displays male and female students' opinions of male teachers. Significant differences were observed in the results of two form items. Female students of male teachers agreed with statement #7, "Amount of homework was appropriate," to a greater degree than did male students of male teachers.

Male students of male teachers agreed to a significantly greater degree to statement #13, "Teacher talked too much about personal problems," than did female students of male teachers.

In response to research question #8, data from female and male students of male teachers were fairly parallel. In contrast, female and male students of female teachers did not rate their teachers equally. The highest ratings were observed in female students of female teachers.

Table 11

Mean Responses to Male Teachers

	Male Students (n=171)	Female Students (n=159)
1. I helped students to be interested in topic	3.78	3.91
2. Students tried to participate	4.18	4.21
3. I began class promptly	4.12	4.13
4. I displayed familiarity with material	4.49	4.58
5. I was well organized	4.28	4.38
6. Homework assigned was worthwhile	3.52	3.76
7. Amount of homework was appropriate	3.61	4.05*
8. I graded my students fairly in this class	4.05	4.11
9. I did not treat students as favorites	3.97	3.83
10. I was reasonable in my expectations	4.20	4.09
11. I showed understanding and concern	3.99	4.06
12. I respected difference of opinions	3.93	4.14
13. I talked too much about personal problems	2.01*	1.68
14. I explained lesson clearly	4.13	4.15
15. I gave opportunities to students to express	3.92	3.90
16. Spent too much time talking	2.31	2.11
17. I help students learn material	3.87	3.97
18. I used different ways to help students learn	3.67	3.75
19. Listened and tried to understand	4.06	4.07
20. I kept class under control	4.18	4.35
21. I made class interesting	4.02	4.06
22. This class was a place students liked to be	3.61	3.77

Note. * $p < .05$

Research Question #9: What are the opinions of teachers regarding teaching performance?

Teacher self-evaluation data were analysed to determine whether significant differences existed between teacher responses to each of the 22 instrument statements. Teacher responses were compared with student responses to establish whether significant differences existed between the opinions of students and those of teachers regarding each of the 22 instrument statements.

Table 12 contains teacher results along with means. Means were determined by issuing each of the rating items a value: "strongly agree," 5; "agree," 4; "no opinion," 3; "disagree," 2; "strongly disagree," 1.

The data indicated that teachers agreed or strongly agreed to all of the survey items with the exception of the two statements regarding negative teaching behaviors. Of the 30 total teacher responses, 96.6% disagreed or strongly disagreed with statement #13, "I talked too much about personal problems in class," and 93.4% disagreed or strongly disagreed with item #16, "I spent too much time talking."

The majority of teachers strongly agreed with statements #2, "I gave opportunity to students to participate," #3, "I began class promptly," and #9, "I did not treat students as favorites."

Table 12

Teacher Frequencies for Each Variable (n=30)

	Strongly Agree	Agree	No Opinion	Disagree	Strongly Disagree	MEAN
1. I helped students to be interested in topic	13.3	80.0	6.7	-	-	4.07
2. Students tried to participate	50.0	46.7	3.3	-	-	4.47
3. I began class promptly	53.3	40.0	-	6.7	-	4.40
4. I displayed familiarity with material	40.0	56.7	3.3	-	-	4.37
5. I was well organized	40.0	53.3	-	6.7	-	4.27
6. Homework assigned was worthwhile	23.3	43.3	33.3	-	-	3.90
7. Amount of homework was appropriate	13.3	50.0	33.3	3.3	-	3.73
8. I graded my students fairly in this class	10.0	50.0	40.0	-	-	3.70
9. I did not treat students as favorites	56.7	43.3	-	-	-	4.57
10. I was reasonable in my expectations	50.0	50.0	-	-	-	4.50
11. I showed understanding and concern	40.0	60.0	-	-	-	4.40
12. I respected difference of opinions	36.7	56.7	6.7	-	-	4.30
13. I talked too much about personal problems	-	3.3	-	13.3	83.3	1.23
14. I explained lesson clearly	13.3	80.0	-	6.7	-	4.00
15. I gave opportunities to students to express	36.7	56.7	-	6.7	-	4.23
16. Spent too much time talking	-	6.7	-	56.7	36.7	1.77
17. I help students learn material	10.0	90.0	-	-	-	4.10
18. I used different ways to help students learn	16.7	70.0	3.3	10.0	-	3.93
19. Listened and tried to understand	26.7	66.7	6.7	-	-	4.20
20. I kept class under control	26.7	70.0	-	3.3	-	4.20
21. I made class interesting	26.7	70.0	3.3	-	-	4.23
22. This class was a place students liked to be	26.7	73.3	-	-	-	4.27

Research Question #10: What differences, if any, existed between students' opinions of teaching performance and teachers' self-evaluation?

To determine whether differences existed between students' opinions and teachers' opinions on the instrument statements, student appraisals and teacher self-evaluations were compared in a T-Test (Table 13).

Results indicated that students' and teachers' opinions differed in 11 of the 22 statements. Teacher ratings of performance were significantly higher in eight of the items compared to the ratings of their students. Student ratings differed significantly from teachers in three of the statements.

Teachers rated themselves significantly higher than did their students regarding statements #1, "I helped students to become interested in today's topic"; #2, "I gave opportunities to students to participate"; #9, "I did not treat students as favorites"; #10, "I was reasonable in my expectations"; #11, "I showed understanding and concern"; #15, "I gave students opportunity to express themselves in my class"; #17, "I helped students learn material"; and #22, "This class was a place my students liked to be." Students also rated teaching performance high regarding the above statements; however, not to the same extent as did their teachers.

Students agreed significantly more than did their teachers that they were graded fairly in their class (#8), that their teacher talked too much about personal problems (#13), and that the

Table 13 of

Means of Student Responses and Teacher Responses For Each Variable

	Student Mean (n=636)	Teacher Mean (n=30)
1. Helped me to be interested	3.84	4.07*
2. I tried to participate	4.17	4.47*
3. Teacher began class promptly	4.12	4.40
4. Teacher knew today's topic	4.53	4.37
5. Teacher was well organized	4.37	4.27
6. Homework was worthwhile	3.76	3.90
7. Homework amount appropriate	3.91	3.73
8. I am graded fairly	4.10*	3.70
9. No student favorites	3.85	4.57*
10. Reasonable in expectations	4.15	4.50*
11. Understanding and concern	4.05	4.40*
12. Respect different opinions	4.10	4.30
13. Talked too much-personal	1.82*	1.23
14. Explained lesson clearly	4.11	4.00
15. Opportunity to express	3.88	4.23
16. Talked too much	2.15*	1.77
17. Helped me to learn material	3.92	4.10*
18. Used different methods	3.76	3.93
19. Listened, tried to understand	4.10	4.20
20. Kept the class under control	4.23	4.20
21. Kept the class interested	4.08	4.23
22. Class a place I liked to be	3.75	4.27*

Note. * $p < .05$

teacher talked too much during class (#16).

Students' means from the 20 statements involving positive teaching behaviors ranged from 4.53 to a low of 3.75. Teachers' means extended from a high of 4.57 to 3.70. Although teachers rated themselves generally higher than did their students, the differences between teacher and student ratings for most of the instrument teaching behaviors were not significant.

Research Question #11: Do years of teaching experience affect students' and teachers' opinions about teaching performance?

Means of teachers' responses with 0 to 5 years of teaching experience and means of their students were compared to determine whether significant differences existed between their ratings of each of the 22 variables (Table 14). Significant differences between students' and teachers' responses were observed in eight of the statements.

Teachers rated themselves significantly higher than did their students on statements #1 and #2, "I helped students to be interested in topic" and "I gave opportunities to students to participate in this class"; and on statements #9, #10, and #11, "I did not treat students as favorites, "I was reasonable in my expectations," and "I showed understanding and concern."

Teachers also rated themselves significantly higher than did their students on the statements relating to the behaviors that they helped students learn material (#17) and that their class was

Table 14

Means of Student Responses and Teacher Responses By Teacher Experience

	0 TO 5 YEARS		6 + YEARS	
	Students (n=318)	Teachers (n=15)	Students (n=318)	Teachers (n=15)
1. I helped students to be interested in topic	3.76	4.13*	3.92	4.00
2. Students tried to participate	4.17	4.60*	4.17	4.33
3. I began class promptly	4.00	4.40	4.25	4.40
4. I displayed familiarity with material	4.42	4.27	4.64	4.47
5. I was well organized	4.28	4.40	4.46	4.13
6. Homework assigned was worthwhile	3.61	3.93	3.90	3.87
7. Amount of homework was appropriate	3.87	3.67	3.95	3.80
8. I graded my students fairly in this class	4.02	3.93	4.19*	3.47
9. I did not treat students as favorites	3.80	4.67*	3.90	4.47*
10. I was reasonable in my expectations	4.09	4.67*	4.20	4.33
11. I showed understanding and concern	4.01	4.60*	4.09	4.20
12. I respected difference of opinions	4.09	4.53	4.10	4.07
13. I talked too much about personal problems	1.78*	1.20	1.86	1.27
14. I explained lesson clearly	4.06	3.87	4.16	4.13
15. I gave opportunities to students to express	3.89	4.33	3.86	4.13
16. Spent too much time talking	2.12	1.73	2.19	1.80
17. I help students learn material	3.89	4.13*	3.94	4.07
18. I used different ways to help students learn	3.78	3.93	3.81	3.93
19. Listened and tried to understand	4.08	4.27	4.12	4.13
20. I kept class under control	4.10	4.13	4.36	4.27
21. I made class interesting	4.06	4.33	4.10	4.13
22. This class was a place students liked to be	3.77	4.33*	3.72	4.20*

Note. * $p < .05$

a place students liked to be (#22).

Students of teachers with fewer than six years of teaching experience agreed to a significantly higher degree than did their teachers on statement #13, "Teacher talked too much about personal problems."

Significant differences were observed in three of the instrument variables when the responses of students of teachers with over six years of teaching experience were compared with their teachers' responses (Table 14).

Students rated their teachers significantly higher than the teachers rated themselves regarding statement #8, "Teacher graded students fairly in this class." Teachers with six or more years of teaching experience agreed with statements #9 and #22 to a significantly greater degree than did their students ("I did not treat students as favorites" and "This class was a place students liked to be").

Teachers with six or more years of teaching experience and their students agreed with each other on more items than did less experienced teachers and their students. Students of the more experienced teachers rated their teachers higher than the students of less experienced teachers rated their teachers.

Research questions #10 and #11 asked about differences between students' opinions and teachers' opinions of teaching performance. Data indicated that differences certainly existed. Teachers rated themselves higher compared to the ratings of their students on

eight of the instrument items; students rated teaching performance higher than did their teachers on three of the survey statements. The greatest discrepancy in responses was observed between the teachers with fewer than six years of teaching experience and their pupils--the teachers rated themselves higher than did their students.

Student and teacher ratings of teaching performance were compared and resulted in the following opinion hierarchy:

(a) teachers with fewer than six years of teaching experience gave themselves the highest overall rating,

(b) students of teachers with six or more years of teaching experience rated their teachers' performances second highest,

(c) teachers with six or more years of teaching experience rated themselves third highest, and

(d) students of teachers with fewer than six years of teaching experience rated their teachers' performances the lowest.

In summary, ratings of teaching performance differed between students and teachers, and among student groups. One variable causing these differences was teachers' years of professional experience.

Chapter V

Summary and Discussion

The final chapter in this study includes a review of the purpose, methodology, design, and findings of the investigation, an evaluation and interpretation of the results, a discussion of the implications relative to the two original hypotheses, and recommendations relating to study findings.

Summary of Purpose and Method

The present study examined students' opinions of teaching performance, investigated variables that may influence student perceptions, and explored teacher performance self-appraisal at the junior high school level. In addition, the investigation compared student opinions to teacher self-evaluation. It was intended that the examination and resulting data furnish further insight as to teachers' awareness of personal classroom behaviors and students' opinions of teaching performance.

Ten volunteer teachers taught three classes each and completed a self-evaluation form relating to their performance throughout each class. Students completed a students' opinion form at the end of each lesson. Data were analysed to determine significant differences of opinions between all students and various student groups regarding each of the 22 survey statements. Student and teacher opinions were also compared.

Student groups were established according to sex of the student, sex of the teacher, class size, grade level, subject area,

and years of experience of their teacher.

Teacher data were grouped according to years of teaching experience. The number of teachers' responses totalled 30; students' responses totalled 636. Student and teacher survey forms remained anonymous.

Discussion and Implications

Data collected and analysed satisfied the three purposes of this investigation. First and second, students' opinions of teaching performance and teachers' self-evaluation were examined. Third, students' opinions of teacher performance and teachers' self-evaluation were compared. Analysis of student and teacher responses indicated that differences existed between the opinions of the six student groups, and that students' opinions of teaching performance differed from teachers' opinions. Thus, the two null hypotheses were not accepted. Following is a discussion of findings relative to the two hypotheses of the investigation. Included are possible implications of study results.

HYPOTHESIS 1: There are no significant differences between the opinions of different groups of students regarding teaching performance.

Student data were divided into six subgroups and results were compared. The subgroups were student gender, years of professional experience of teachers, subjects and all students, subjects and male/female students, grade level, class size, and teacher gender. Results outlined in Tables 2 through 11 indicated that, indeed,

disparities existed between the responses of different student groups regarding opinions of teaching performance.

Male/female student results. Means for females regarding the 22 survey items were generally higher than those of males, indicating that female students rated the teaching performances of their teachers higher than did males concerning the majority of the survey statements.

Because more female students rated teaching performance higher than did their male counterparts, one may assume that female junior high school students hold a more positive opinion about the behaviors of their teachers. Whether these results suggest junior high males are more critical or whether junior high curricula and, in fact, school in general parallel female needs more than those of male students is debatable, and perhaps worthy of further study.

Professional experience of teacher. Male and female data were further divided into student subgroups depending upon the professional experience of teachers. Students of the more experienced teachers rated the performances of those teachers higher than did students of teachers with fewer than six years of experience. In fact, male students of more experienced teachers rated their teachers higher than did male students of the less experienced teachers respecting 20 of the 22 statements, with significant differences being observed in seven items. Female students of the more experienced teachers rated the performances of their teachers higher than did their female peers regarding 13 of

the 22 student items.

Due to the fact that the means were generally higher from the responses of both male and female students of the more experienced teachers, these students viewed the teaching performances of their teachers more positively than did students of the less experienced teachers. Results may also imply that experienced teachers teach more effectively than do less experienced teachers, and further, that teaching experience improves teaching performance.

Subject. The 636 student responses were divided according to the five subjects involved in the study, which were mathematics, science, language arts, social studies, and physical education. No significant differences were apparent between the opinions of students in science, language arts, and social studies. However, of the 19 statements relating to positive classroom behaviors, 12 of the student means were highest in science, seven highest in language arts, and social studies had one statement mean higher than the other two subjects. Science students, then, viewed the performances of their teachers more positively than did language arts and social studies students.

Significant differences between mathematics and physical education, and the other three subject responses, were indeed evident. These differences occurred between physical education and at least one other subject regarding nine of the 22 statements, and between mathematics and at least one other subject regarding eight of the statements. Mathematics students agreed to a greater extent

that teachers kept their classes under control compared to social studies, language arts and science students. Results may imply that mathematics teachers are more successful in the area of classroom management, or that perhaps the structure of the junior high mathematics curriculum is more conducive to class control. In fact, further comparisons of student responses in relation to subject matter may offer insight regarding the nature of the junior high school student, the appropriateness of curricula content, and the influence of curriculum on student perceptions of teaching behavior.

An example of the influence of curriculum on student perceptions of teaching performance could be extracted from mathematics. Mathematics tends to be a concrete subject: answers are either right or wrong, allowing for few, if any, undefined boundaries. However, the subjects of science, language arts and, in particular, social studies tend to be more abstract in content and perhaps in student evaluation methods, allowing for unclear parameters, more "gray areas," more subjectivity. To further support this abstract/concrete concept regarding subject content and evaluation of students and teachers, significant differences were observed in the data between mathematics students and language arts and social studies students regarding statement #8, "I am graded fairly in this class." Mathematics students rated their teachers higher, suggesting that language arts and social studies students perceived themselves to be graded less fairly than

mathematics students. Again, junior high school mathematics curriculum and evaluation methods may be more concrete and objective than are science, language arts, and social studies.

Further, results for the statement referring to the teacher giving opportunity for students to participate in class may relate more accurately to the dictates of the curriculum rather than to teacher behavior. As physical education is a physically participatory subject, rather than a lecture/deskwork-based subject, one may assume that physical education teachers gave more opportunity to students for active, physical participation than did teachers of the other subjects. Further, students at these grade levels may not view deskwork and listening as participatory activities, at least not to the same extent as physical movement in a gymnasium.

Adding further support to the possibility that teacher behavior is often dictated by curriculum is statement #16, "Teacher talked too much during the class." Physical education students rated their teachers lower on the five-point scale than did other students (i.e., they did not believe that their teachers talked too much in physical education classes). Again, physical education was the least lecture-based course in the study.

Noteworthy were the results of the last survey statement relating to the class as a place students liked to be. The highest student ratings for this statement were observed in physical education, followed by mathematics, science, social studies, and

language arts, respectively. One may imply that junior high school students like language arts less than their other subjects, preceded by social studies. Again, these two subjects tend to be more abstract than physical education, mathematics and science.

Data of the five subjects were separated by student gender to determine the relationship between subject and the sex of the student. Results indicated that differences of opinions do, in fact, exist between male and female students. Male physical education students rated their teachers' performances significantly higher than did male students in the other four subjects regarding statement #2, "Teacher gave opportunities to participate in class"; however, significant differences in responses between female students and subject variable were not apparent for this instrument item.

Female physical education students felt that their teachers helped them to become interested in the day's topic, that homework was significantly more worthwhile in mathematics than in science and social studies, that their physical education teachers were reasonable in their expectations, and that their physical education teachers helped them to learn the material. No significant differences existed in male student data regarding these four teaching behaviors.

Although both male and female student groups agreed that physical education class was their most favorite place to be when compared to the other four subject areas of this study, males

indicated that their least favorite place to be was language arts class; females, science class.

Grade level. Student data were grouped according to grade level. Significant differences occurred between the grade eight results and the grades seven and nine responses in 17 of the 22 survey statements. Grade eight students agreed with each other more and rated their teachers consistently higher than did the other two grade levels. According to students, grade eight teachers performed at a higher level than did grade seven and nine teachers, or was it that grade eight students are less critical of their teachers? This may be a question, perhaps, for another research study.

Class size. Class size was also a variable investigated in this examination of students' opinions of teaching performance. Students collectively rated their teachers of larger classes (21 to 27 students) higher than did students of teachers with fewer than 21 pupils in their classes. Significant differences were observed between the two groups concerning four of the survey statements. Results indicated that students in this study were more supportive of teaching behaviors with respect to the study questions as class size increased.

Teacher gender. To determine the influence of teacher gender on students' opinions of teaching performance, results were divided and compared according to, first, students of female teachers and, second, students of male teachers.

Students of male teachers rated their teachers higher on 11 of the survey statements; students of female teachers rated their teachers higher on the other 11 instrument items. A significant difference occurred in only one item: students of female teachers believed that the homework assigned was more worthwhile than did students of male teachers. Interpretation suggests that sex of teacher had relatively little effect on students' opinions of teaching performance.

However, after further separating data into sex of the students relative to sex of the teachers, analysis indicated that female students rated their female teachers higher than did male students regarding the majority of the teaching behaviors. Female students also rated their male teachers higher than did their male peers. Results may imply that female students are less critical and more generous in their ratings of teaching performance. Or perhaps that junior high school, in particular curricula and teaching strategies, is more conducive to teaching females than to teaching males. (One wonders what results would have ensued if vocational courses had been involved as subject variables in this study.)

In summary, students' opinions of teaching performance were positive. Means of the 20 positive survey items ranged from 4.53 to 3.75 on a scale of 1 to 5. Female students gave higher ratings for teaching performance than did male students. Teachers having six or more years of teaching experience received higher ratings

from their students than did teachers having fewer than six years of experience. Performances of physical education and mathematics teachers received higher ratings than did performances of science, language arts and social studies teachers. Responses to the statement, "This class is a place I liked to be," in the subject of physical education received the highest ratings. The nature of the subject rather than teaching performance itself may have influenced student results, and, in addition, teacher behaviors. Grade eight students rated the performances of their teachers at a higher level than did the students of grades seven and nine teachers. Students in classes of 21 to 27 pupils rated their teachers at a higher performance level than did students of teachers of smaller class sizes. Gender of teacher had little effect on students' opinions of teaching performance. Data indicated that differences between the opinions of the six student groups regarding teaching performances do exist; therefore, the first null hypothesis was rejected.

HYPOTHESIS 2: There are no significant differences between students' opinions of teaching performance and teachers' self-evaluations.

To determine possible differences between students' opinions and teachers' opinions of teaching performance, teacher frequencies for each variable were calculated. These results were then compared to student frequencies. Further, student and teacher results were compared according to teachers' years of teaching

experience. Results displayed on Tables 12, 13 and 14 denote the existence of opinion differences between students and teachers regarding teaching performance.

Teacher results. The highest percentage of teacher responses for the positive teaching behaviors were observed under the "strongly agree" and "agree" columns. Teachers involved in this investigation rated their teaching performance highly, with means extending from 4.57 to 3.70 on the 20 statements relating to positive teaching behaviors.

Comparisons of students' and teachers' responses. To determine differences between students' responses and teachers' responses, frequency counts were compared. Teachers rated themselves higher than did students regarding 13 of the 21 statements relating to positive teaching behaviors. Significant differences were observed in the results of eight instrument statements.

Of interest is the fact that although students did not rate teachers as highly as teachers rated themselves, student ratings of teaching performance were still high. Student opinion means for the positive teaching behaviors ranged from 4.53 to 3.76; teacher means ranged from 4.57 to 3.70.

Years of teaching experience. Students' and teachers' responses were also compared according to teachers' years of experience. Teachers with up to five years of teaching experience rated themselves higher than did their students in all but one of

the positive statements, with significantly higher ratings in eight statements. Student means of less experienced teachers ranged from 4.09 to 3.61; less experienced teacher means ranged from 4.67 to 3.87.

The differences between the ratings of the more experienced teachers and their students were not as great as the results from the two previous student/teacher groups. More experienced teachers rated themselves higher in 12 of the statements, with significant differences evident in three instrument statements. Means relating to level of teaching performance from the more experienced teachers ranged from 4.47 to 3.47; and from their students, means ranged from 4.64 to 3.72 (disregarding the means of the two statements relating to negative teaching behaviors).

In summary, teachers "agreed" or "strongly agreed" to most of the positive teaching performance statements, with some "no opinion" and some "disagree" responses. Results indicated that teachers with fewer years of teaching experience rated their teaching performance at the highest level, students of the more experienced teachers provided the second highest rating of teaching performance, teachers with six or more years of experience rated their teaching performance the third highest in comparison to the other groups, and students of the less experienced teachers rated the teaching performance of those teachers at the lowest level in relation to the three other sample groups.

Data analysis established that although the group of teachers

with fewer than six years of teaching experience rated their teaching performance at the highest level, student opinion failed to support these ratings. In fact, students of those teachers rated the teaching performance at the lowest level in comparison to the opinions of the other three groups. Analysis of data means indicated that students of teachers with six or more years of teaching experience rated the performance of their teachers at a higher level than did those teachers themselves.

To summarize, comparing student data with teacher data indicated that there, indeed, were differences between the opinions of students and the opinions of teachers regarding teaching performance. Thus, the second null hypothesis was rejected.

In conclusion, data collected and analysed throughout the present investigation established that differences existed between the opinions of various groups of students regarding teaching performance. Variables that influence students' opinions of teaching performance included student gender, grade level, subject, class size, years of experience of the teacher, and, to a lesser degree, teacher gender. Study results also suggested that differences existed between the opinions of teachers and the opinions of students regarding teaching performance. The study hypotheses, then, were rejected; there were significant differences between the opinions of various student groups regarding teaching performance, and significant differences existed between students' opinions of teaching performance and teachers' self-evaluation.

Recommendations and Questions

Based on the results of the investigation, I recommend the following:

1. That teachers continue to self-evaluate by completing formal self-assessment instruments on a regular basis. Doing so permits teachers to critically view their personal performance for the purpose of continuous self-development.

2. That supervision of teaching performance data continue to be collected from many sources, including students. Students are aware of appropriate and inappropriate teaching behaviors and are capable of rating those behaviors. Analysis of students' opinions of teaching performance may assist teachers in the self-development area by furnishing information relating to daily classroom interactions.

3. That formally collected teacher data and student data be compared to assist teachers in becoming more aware of possible discrepancies between personal opinions and students' opinions relative to classroom interactions.

4. That related investigations ensue to add further insight as to the perceptions of students regarding teaching performance, to expand existing information relating to teacher self-evaluation, and to further examine the differences between students' opinions and teachers' opinions of teaching performance.

Questions raised but unresolved as a result of the present study that may lead to further related investigations include:

1. To what extent, if any, does course content dictate teaching behavior?

2. To what extent, if any, do curricula of the five core subjects parallel the nature and learning styles of the junior high school student?

3. What differences would have resulted in data if other subjects had been involved in the present study (e.g., Industrial Arts or Home Economics)?

4. Would similar results occur if data had been gathered in a large urban setting rather than a small rural area?

5. To what extent would the opinions of junior high school students differ from those of high school students? of elementary school students?

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APPENDIX A

STUDENT OPINION FORM

STUDENT OPINION FORM

Circle the appropriate item below:

(a) Male Female

(b) Grade level: 7 8 9

(c) Subject: Mathematics Science Social Studies
Language Arts Physical Education

DIRECTIONS:

This is an attempt by your teacher to gain information about the class by reading your reactions. Please respond by placing a checkmark in one of the columns to the right of each statement. Be as honest as possible. DO NOT SIGN YOUR NAME.

SA is Strongly Agree
A is Agree
NO is No Opinion
D is Disagree
SD is Strongly Disagree

	SA	A	NO	D	SD
1. This teacher helped me to be interested in this subject.					
2. Teacher gave opportunity to students to participate in this class.					
3. This teacher began class promptly without wasting time.					
4. This teacher seemed to know the subject we were studying.					
5. This teacher was well organized.					
6. Homework assigned is worthwhile and not just busy work.					
7. The amount of homework assigned is right for this class.					
8. Teacher graded me fairly in this class.					
9. This teacher avoided treating any students as favorites.					
10. This teacher was reasonable in what he/she expected students to do.					
11. This teacher showed understanding and concern for students.					
12. This teacher respected the expression of different opinions.					
13. This teacher talked too much about personal problems that shouldn't be brought to the classroom.					
14. This teacher explained the lesson clearly.					
15. Teacher gave me opportunities to express myself in class.					
16. This teacher spent too much time talking.					
17. This teacher seemed to understand how much I know and helped me learn.					

18. This teacher uses different methods and aids to help me learn.

19. This teacher listened and tried to understand what we were saying.

20. This teacher kept the class under control enough to allow us to learn.

21. This teacher tried to make the class interesting.

22. This class is a place I like to be.

APPENDIX B

TEACHER OPINION FORM

TEACHER SELF-EVALUATION FORM

DIRECTIONS: Fill in the evaluation form as accurately and honestly as possible. Do not sign your name.

(a) Circle the appropriate gender: Male Female

(b) Number of years taught: 0-5 years 6+ years

(c) Class size: Under 20 21+

Place a checkmark in one of the columns to the right of each statement according to the following:

SA is Strongly Agree
A is Agree
NO is No Opinion
D is Disagree
SD is Strongly Disagree

	SA	A	NO	D	SD
1. I helped students become interested in this subject.					
2. I gave opportunity to students to participate in this class.					
3. I began class promptly without wasting time.					
4. I know the subject being studied.					
5. I was well organized.					
6. Homework assigned is worthwhile and not just busy work.					
7. The amount of homework assigned is right for this class.					
8. I graded my students fairly in this class.					
9. I avoided treating any students as favorites.					
10. I was reasonable in what I expected students to do.					
11. I showed understanding and concern for students.					
12. I respected the expression of different opinions.					
13. I talked too much about personal problems that shouldn't be brought into the classroom.					
14. I explained the lesson clearly.					
15. I gave opportunities to students to express themselves in class.					
16. I spent too much time talking.					
17. I understood how much my students know and helped them learn.					

18. I use different methods and aids to help my students learn.

19. I listened and tried to understand what the students were saying.

20. I kept the class under control enough to allow students to learn.

21. I tried to make the class interesting.

22. This class is a place my students like to be.